Have you ever wanted to extract medical information from clinical notes, biomedical textbooks, tweets or other unstructured text data? Have you tried to extract it yourself and hit roadblocks? Or, perhaps you were successful and but want to raise the bar and meet people doing similar work at UCSF.

On May 18, the Research Data Community Organizing team hosted an event dedicated to using natural language processing (NLP) to enable research.

This was a two-part event:

- The first part of the morning featured current work by researchers on campus who have successfully used NLP to enable their research. Learn what's possible with text analysis and information retrieval, and the support available to conduct medical research using NLP at UCSF.  
  View Presentations - Part 1
- The second part of the morning was a deep dive into the code and techniques used by analysts and programmers, with the goal of enabling participants to get started with NLP. It highlighted tools, examples, challenges and technical particulars in the use of NLP.  
  View Presentations - Part 2

 Couldn’t attend in person? Watch it now!

AGENDA

9:00  Visionary Key Note  
Atul Butte, MD, PhD, Priscilla Chan and Mark Zuckerberg Distinguished Professor, Director, UCSF Institute for Computational Health Sciences  
*Light breakfast will be served starting 8:30

9:20  Examples of NLP-enabled research from UCSF community

- Using NLP to Identify Predictors of Mortality in ICU Text: Methodological Options  
  Adams Dudley, MD, MBA, Professor of Medicine and Health Policy and Associate Director for Research, Philip R. Lee UCSF Institute for Health Policy Studies
- Large-Scale Analysis of Clinical Records at UCSF with state of the art Natural language Processing Platforms  
  Maryam Panahiazar, PhD, Postdoctoral Scholar, Butte Lab, UCSF Institute for Computational Health Sciences
- Using Text Mining Methods to Detect a Clinical Infection  
  Milena Gianfrancesco, PhD, MPH, Postdoctoral Scholar, UCSF and Suzanne Tamang, PhD, Assistant Faculty Director, Data Science, Stanford Center for Population Health Sciences, Instructor, Biomedical Data Science
- Employing NLP to Measure Patient Health Literacy and Clinician Linguistic Complexity: The UCSF/Kaiser ECLIPSE Study  
  Dean Schillinger, MD, UCSF Professor of Medicine in Residence, Chief of the UCSF Division of General Internal Medicine at Zuckerberg San Francisco General Hospital

1:00  Community & information resources
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>0:40</td>
<td>Break; morning snack provided</td>
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<tr>
<td>1:0:55</td>
<td>General purpose NLP tools and infrastructure available at UCSF</td>
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| | - An Absolute Beginner’s Guide to NLP  
  Robert Thombley, Data Scientist, UCSF Institute for Health Policy Studies |
| | - Tools and Approaches to NLP in Clinical Notes  
  Madison Myers, Data Scientist, IBM |
| | - cTAKES - What Does it Take?  
  Gundolf Schenk, Sr. Biomedical Data Scientist, UCSF Institute for Computational Health Sciences |
| | - Building Custom, Scalable, and Generalizable NLP Tools  
  Beau Norgeot, Butte Lab, UCSF Institute for Computational Health Sciences |
| | - Infrastructure for NLP  
  Rick Larsen, UCSF Director, Research Informatics, Enterprise Information and Analytics |
| 1:2:25 | Wrap up |